

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 123490/16 RC	<div style="display: flex; justify-content: space-between;"> FOR FURTHER ACTION See Form PCT/IPEA/416 </div>	
International application No. PCT/NZ2004/000071	International filing date (<i>day/month/year</i>) 13 April 2004	Priority date (<i>day/month/year</i>) 14 April 2003
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ A01J 5/013		
Applicant SENSORTEC LIMITED et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☒ (*sent to the applicant and to the International Bureau*) a total of 4 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input checked="" type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand 7 February 2005	Date of completion of the report 25 July 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer A SEN Telephone No. (02) 6283 2158

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:

☐ international search (under Rules 12.3 and 23.1 (b))

☐ publication of the international application (under Rule 12.4)

☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☐ the international application as originally filed/furnished

☒ the description:

pages 1-20 as originally filed/furnished

pages* received by this Authority on with the letter of

pages* received by this Authority on with the letter of

☒ the claims:

pages as originally filed/furnished

pages* as amended (together with any statement) under Article 19

pages* 21-24, received on 18 April 2005 with the letter of 18 April 2005

pages* received by this Authority on with the letter of

☒ the drawings:

pages 1/4-4/4 as originally filed/furnished

pages* received by this Authority on with the letter of

pages* received by this Authority on with the letter of

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages

☐ the claims, Nos.

☐ the drawings, sheets/figs

☐ the sequence listing (*specify*):

☐ any table(s) related to the sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages

☐ the claims, Nos.

☐ the drawings, sheets/figs

☐ the sequence listing (*specify*):

☐ any table(s) related to the sequence listing (*specify*):

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-20, 23	YES
	Claims 21, 22, 24, 25	NO
Inventive step (IS)	Claims	YES
	Claims 1-25	NO
Industrial applicability (IA)	Claims 1-25	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

NOVELTY (N): Claims 21, 22, 24, 25

(a) US 4011838: Claims 21, 22, 24, 25

From the drawings and description, extraction element teat cup 4/5/6/7 for extracting **milk**; controller 16; sensor 14; common line 12. From column 4, lines 65-68; col 9, line 67-col 10, line 9; it is clear that there is sequential operation of the teat cups, implying that when one teat cup extracts milk that subsequently flows into the common line 12, there is at least one other cup that is *not* extracting milk and hence there is a time period when only some of the extraction elements are inputting milk into common line 12 and the other extractor elements are idle. The controller 16 therefore controls the activation of the extraction elements to prevent milk supplied from *all* elements from entering into the common line 12 together at any one time.

(b) US 4572104: Claims 21, 22, 24, 25

Extraction element 14 for extracting **milk**; controller 46; sensor 42; common line 12. From col 2, lines 52-59; col 3, lines 51-59; it is clear that, for some time at least, there is one extraction element, ie one cup (or a pair of cups) that is extracting milk while another cup or pair of cups remains idle. The controller 46 therefore controls the activation of the extraction elements to prevent milk supplied from *all* elements from entering into the common line 12 together at any one time.

Hence each document discloses all the features of each claim listed alongside.

INVENTIVE STEP (IS): Claims 1-25

Claims 21, 22, 24, 25: as above

(c) US 6378455: single sensor 12 in common line 4/5; col 1, lines 24-26 disclose that sensor 12 detects particular compounds in **milk**; col 4, lines 49-52, discloses comparison of conductivity values of different udder quarters

Claims 1-20, 23 each lack an inventive step with respect to either citation (a) or (b) when combined with citation (c), such combination being obvious to the person skilled in the art (PSA).

Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
EP 1369031	10 December 2003	28 April 2003	6 June 2002

From description and drawings, extraction element teat cup 1 (2, 3, 4) together with valve 19 (20, 21, 22) since valve 19 allows overall effective 'extraction' by allowing/not allowing milk to entire the common line; controller (col 1, lines 55-58) for controlling valve 19 in such a way that the activation of the extraction elements occurs to prevent milk supplied from *all* elements from entering into the common line 6 together at any one time; single sensor 5 in common line 6. Single sensor 5 is a spectrum analyser (col 2, lines 3-7) for analysis of chemical compounds in the milk and is subjected to milk only from a single extraction element at any one time as disclosed at col 2, lines 44-51. Hence Claims 1, 2, 4-7, 21, 23-25, lack novelty; Claims 3, 8, 13, 17-20, lack inventive step; with respect to this citation.

2. Non-written disclosures (Rule 70.9)

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure (day/month/year)</u>	<u>Date of written disclosure referring to non-written disclosure (day/month/year)</u>

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claims 1-25 do not define the invention described because they omit the following features which, from reading the specification as a whole, appear to be essential to the invention:

(a) there is one common collection line into which two or more extraction elements deliver the extracted fluid

(b) extraction elements are operated sequentially so that fluid extracted by only one element flows through the common line at any one time

(c) there is a single sensor in the common line that is exposed to fluid flowing from only one element at any one time, as a consequence of the sequential operation of the extraction elements

From reading your description it is abundantly clear that features (a)-(c) embody your invention.

Claim 1, as it now stands, has a scope that is broad enough to encompass situations that are well beyond your invention. For instance, 'deliver an extracted fluid from two or more extraction elements into *at least one* collection line' (lines 3/4) includes the possibility that *two* extraction elements empty into *two* collection lines *respectively*, ie one extraction element empties into one collection line and the other extraction element empties into another collection line quite *independently* of the other. Surely, this is not your invention. In the same way, 'at least one sensor associated with at least one collection line' (lines 5/6) can mean that there are many sensors in many lines. Again, this certainly does not appear to be your invention. Hence, features (a) and (c) must be defined in the claims.

Furthermore, there is one and only one method described in your description of achieving single fluid flow in a common line and that is by sequential operation of the elements. Your claims as they now stand are speculative because they define any and every method of achieving single flow, even the type disclosed in the 'P' document cited herein where on-line valves (that are part of the 'extraction element' as discussed in Box VI) are activated/de-activated to achieve single flow. Therefore your claims must define feature (b) above in order to define your invention.

Please note that the comments above are equally applicable for Claim 21.